

**Erik Osborn**

**Curriculum Vitae**

**August 2023**

Erik Osborn, MD  
COL (Ret), MC USA

Work addresses:

American College of Chest Physicians  
Mary Washington Hospital VA  
HCA Virginia  
CJW and Henrico Hospitals  
TidalHealth Delaware  
BayHealth Delaware

**Experienced leader, educator and pulmonary critical care physician with expertise in extracorporeal support, Covid, cardiac surgery, and neuro critical care. Comfortable caring for all types of ICU patients and doing pulmonary medicine.**

Home address:

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### **Education:**

Medical school: **Columbia College of Physicians and Surgeons, MD 1997**  
Pre-medical Certificate: **Columbia University Pre-Medical Program 1991**  
Undergraduate: **Princeton University, B.A. English 1990**

### **Professional Training:**

Fellowship: **Walter Reed Army Medical Center  
Pulmonary and Critical Care Medicine - June 2004- 07**  
Residency: **Walter Reed Army Medical Center, Internal Medicine  
From 1998- 2001**  
Internship: **Walter Reed Army Medical Center, Internal Medicine  
1997-1998**  
**Board certifications: Critical Care Medicine, October 2007 recert 2018  
Pulmonary Medicine, October 2006 recert 2017  
Sleep Medicine, November 2013  
Internal Medicine, August 2001**

**Medical license: Virginia # 0101240166, expires 5/31/2024  
Delaware # C1-0024720 expires 3/31/2025  
Maryland # D0098248 expires 9/30/2024**

## Work History / Experience / Military assignments

### American College of Chest Physicians – 2011 until present

- **Chairman ECMO/MCS Domain Task Force:** educate and create guidelines for extracorporeal support
- **Vice Chairman Mechanical Ventilation Task Force:** 2016 to 2021
- **Director: Lessons Learned during the Covid Pandemic** webinar April 2022
- **Course Director: Extracorporeal Support for Cardiac and Respiratory Failure.** 3-day course at Chest headquarters in Glenview IL - 2018 to present
- **Course Chair: Mechanical Circulatory Support.** New course June 2023.
- **ECMO course Dec 9-11, Chicago 2022, 2023**
- **Course Director: VV ECMO for Severe ARDS and eCPR for Cardiac Arrest:** simulation course at Chest Nashville 2022
- **Distinguished Chest Educator Designation 2023:** 2017 through 2023
- **Speaker: Chest and India Covid Management International Consortium**  
June 27, 2021, over 1000 attendees

### Mary Washington Hospital, Fredericksburg VA: Pulmonary Critical Care Physician

- Cardiac Critical Care, Neuro Critical Care, Trauma and Medical ICUs. 36 beds. Since Feb 2022, part time
- Surgical Quality Review Associate Director
- Medical Director of PERT Team

### Artificial Intelligence in Healthcare: MIT Sloan School of Management

- **Certificate July 2023-** applications of AI in medicine

### ECMO - Critical Care - Pulmonary Consultant and Educator:

- **Faculty – Critical Care Cardiology Education Summit May 2023-** ECMO cannulation, chest tubes, mechanical ventilation, promoting Cardiac Critical Care
- **Speaker: Cox Air Care conference – Missouri 2023 March**
  - **Managing Covid and Critical Illness**
  - **Long Covid Management**
  - **Transport of Shock Patients**
- **Consultant: Freeman Health System Joplin Missouri Jan 2023**
  - Helping build a new ECMO program
- **Speaker: Hoosier Extracorporeal Science Conference, Indianapolis IN May 24-26, 2022,** ECMO Clinical Challenges, Ethics in ECMO
  - **Challenging Covid Cases** workshop
- **Jacksonville Memorial Hospital, Jacksonville FL {Sept, Oct 2021}**
- **Consultant: Heartbeat Perfusion Solutions: {Jan 2022}**  
Speaker at Hoosier Extracorporeal Science Conference 2022 IN
- **Expert Witness and Medical Analysis for Covid Case:** South Miami Hospital, Claims and Risk Management Services, Miami FL
- **Ascension St Vincent Hospital, Indianapolis IN {Nov 2021}**  
Speaker, instructor, consultant for new and established ECMO programs
- **Chest Fellows Course {Jan 2022}:** Introduction to ECMO - **faculty**

- **Chapter: ECMO Management Challenges:** SCAI Textbook {Mar 2022}
- **Moderator** and Panelist: Evolution of ECMO in Covid Lung: Chest Oct 2021
- SCAI Conference Speaker: Oct 8, 2021: **ECMO for the Cardiologist**
- Speaker: 8<sup>th</sup> Annual Chonnum National University Hospital ECMO Symposium  
**Critical Care Management in ECMO.** Joint symposium with **Johns Hopkins University** and **Korean Chonnum National University**
- **Expert witness and ECMO Consultant:**  
Falk, Waas, Hernandez, Solomon, Mendlestein & Davis, P.A.  
Coral Gables, FL
- **Course Director: ECMO and MCS** courses at **Chest Annual Conference**  
Nashville, TN, Oct 2022
- **Author** of chapters in ECMO textbook: Renal Failure and Fluid Management, Nutrition during Extracorporeal Support

**Highlights** – Media reviews, since beginning of Covid Pandemic

- **Multiple Media appearances** Nationally, Locally, and Internationally
  - Television, print, online, American Lung Association Long interview
- **Monthly speaking engagements** in the United States regarding challenging Covid patients
- **Direct quarterly courses** in caring for Covid patients for multiple organizations
- **Authored 7 papers** relating to care of Covid patients in peer reviewed medical journals

**Medical Consultant – Expert Witness – Medical Legal Consulting and Case Review**

- **Pulmonary Critical Care Medicine/Extracorporeal Support:** ICU medicine, pulmonary inpatient, and outpatient medicine. 20 years of experience in large academic centers
- **Covid Physician:** actively caring for patients with Covid during all phases of their illness since early March 2020
- **Independent and External Peer Review – Expert Witness Experience**
  - **Florida:** Miami and Ft Lauderdale
  - **Virginia:** ECMO, shock, Covid reviews
  - **Maryland:** Cardiac arrest in surgery
  - **Virginia:** Perioperative complications
  - **Delaware:** Covid and Respiratory failure reviews
- **Advised Risk Management Committees** for multiple large health care systems
- **Advised counsel regarding expert medical review and strategy**
- Florida Expert Witness status

**Medical Advisory Board Member: Direct Biologics April 2022**

- **Principle Investigator Phase 3 study with Exoflow (stem cell derived medicine for lung failure)**
  - Randomized blinded study – BayHealth in Dover DE
- **New medicine being developed for ARDS patients**

- Experimental biologic medicine derived from exovesicles of mesenchymal stem cells. Given to patient with refractory Covid lung failure who then recovered.

**AllStar Medical Staffing:** Locum tenens physician, August 2021 to present

- Part time pulmonary critical care position at Chippenham Johnston Willis Hospital and Henrico Hospital in Richmond Virginia.
- Johnston Willis September 9, 2021, to present
  - Neuro ICU patient management
- Chippenham October 23, 2021, to present
- Henrico Hospital November 2, 2021, to present
- Cardiac ICUs in Henrico and Chippenham Hospitals
- Pulmonary Critical Care: BayHealth in Dover, DE since Sept 2022
  - Cardiac and Neuro ICU patient management

**CompHealth Medical Staffing:** Locum tenens physician August 28, 2021, to present

- Delaware Medical License, credentialed with TidalHealth, Nanticoke Hospital in Seaford DE, ICU and pulmonary consults

**Locum Tenens Company:** Healthcare staffing. Physician – pulmonary critical care

- Mary Washington Hospital, Fredericksburg VA (cardiac ICU) Feb 2022 to Dec 2022
- Sentara Careplex Hospital, Hampton, VA. May 25, 2022

**Novant Health UVA Community Health:** Attending physician: Start Jan 3, 2022  
Part time critical care physician

**Academic Peer Review Medical Literature:** provided senior medical review for multiple articles in medical journals: Perfusion, Journal of Intensive Care

**2015 through July 2021**

**Inova Fairfax Hospital – Medical Director Adult Extracorporeal Service  
Cardiovascular Intensive Care Unit Attending  
Pulmonary Critical Care Medicine**

Full time started July 2018 – July 2021

Part time since April 2015 – June 2018

- **Medical Director Adult ECMO Program:** Jan 2019 until May 2021
  - Achieved ELSO Gold Award July 2020
  - Over 120 adult ECMO patients in 2020 with excellent outcomes
- **Director: Inova ECMO Fellowship rotation Jan 2018 – July 2021**
- **Covid Physician: caring full time for Covid patients** throughout the course of their illness and after discharge from the hospital
- **Cardiovascular ICU Attending:** medium size heart and lung transplant center, high volume ECMO and MCS, busy Cardiac Surgery service
- **Inova eICU Attending:** electronic ICU attending. Cover 8 ICUs in 5 hospitals and 80-100 patients during overnight shifts part time.

- **Pulmonary physician:** busy pulmonary consult service across multiple units
- **Speaker and Educator:** prior to Covid, traveled within US and internationally to speak and/or teach about ECMO, MCS, respiratory failure, military medicine on average once a month.
- **ELSO Conference September 2021 Speaker:** complex ECMO and MCS cases
- **American Lung Association blog Jan 2021:** simple explanation about ECMO for a large audience - <https://www.lung.org/blog/about-ecmo>
- **Chest Fellows Course Jan 2021:** Faculty- Mechanical Circulatory and Extracorporeal Support
- **Principle Investigator:** Expanded Access Protocol for Patients with Critical Covid-19 with Respiratory Failure. Giving new drug Aviptadil to the sickest Covid patients
- **JACC 2021 Jan (77): Management of Cardiogenic Shock During Covid-19: The IHVI Experience.** Letter to the editor Rosner CM, Osborn E, et al.
- **Author for 3 Chapters in an ECMO textbook. Published Jan 2021.**
- **Distinguished Chest Educator Award Fall 2020 and Summer 2021**
- **Washingtonian Magazine October 2020:** featured in article about caring for the sickest patients during the pandemic
- **Washington Post article:** feature story about caring for two brothers ages 14 and 16 on VV ECMO due to Covid
- **Chest Mechanical Ventilation Domain Task Force: elected Vice Chair Summer 2020**
- **ELSO Conference Speaker Sept 2020:** represented the United States at the virtual international ELSO conference regarding the care of Covid ARDS patients
- **Chest 2020 Oct virtual conference:** faculty for course in Mechanical Ventilation of Covid patients
- **SCAI Virtual Oct 2020 conference:** presentation on Mechanical Circulatory Support. Society for Cardiovascular Angiography and Interventions
- **Presented at Virginia Cardiac Services Quality Initiative meeting Sept 2020:** use of ECMO in care of severe Covid associated heart and lung failure.
- **ELSO Gold Center of Excellence Award** achieved by the Inova Health System ECMO program. July 2020.
- **Mt Sinai Medical Center NYC - Grand Rounds Feb 2020**
  - Challenging ECMO cases
- **SCCM 2020 Shock Symposium – SCAI Stages and Escalation, Orlando FL**
- **Chest Advanced Mechanical Ventilation course instructor – severe hypoxia**
  - Feb 2020 Chicago
- **October 2019 Chest New Orleans – Course Director VV, VA EMCO, eCPR**
- **Chest headquarters November 2019 – Course Director**
  - Extracorporeal Support or Cardiac and Respiratory Failure
- **Invited Speaker: EURO ELSO London May 2020**
- **Keynote Speaker Getinge Annual Sales meeting, Feb 2019**
  - LV venting during VA ECMO, Starting and managing an ECMO program
- **Speaker 35<sup>th</sup> Annual Keystone ECMO Meeting, Feb 2019**
  - Trauma and Brain Injury in ECMO

Ethics panel moderator

- Chest Advanced Mechanical Ventilation Course, Feb 2019  
Hypoxic Respiratory Failure, Indications for ECLS
- **STS 55<sup>th</sup> Annual Society Thoracic Surgeons meeting, Jan 2019**  
Extracorporeal CPR
- **September 2018: Speaking at ELSO – Extracorporeal Life Support Organization.** Extreme Trauma and ECMO Lessons, Tolerating Hypoxia in VV ECMO. ELSO annual international conference. Phoenix AZ
- **Distinguished Chest Educator Award 2019** – given to top 5% of Chest international faculty
- **October 2018:**
  - **Course Director at Chest Annual Conference: Introduction to VV ECMO – Patient and Circuit.** International annual meeting of physicians caring for the most critically ill patients. San Antonio TX
- November 2018:
  - **Keynote Speaker Mayo Clinic ECMO Skills Course** – Jacksonville FL
  - **Valley Health Trauma Conference Guest Speaker** – Poughkeepsie NY
- December 2018:
  - **Course director: Extracorporeal Support for Respiratory and Cardiac Failure.** First ever 3-day course at Chest Headquarters in Chicago
- **Published: Military ARDS paper, Acute Respiratory Failure**
  - Military Medicine, Sept 2018

#### Research projects:

- **Medical Advisory Board – Direct Biologics**
  - **PI: Developing new medicine to treat ARDS – Phase III study**
- **Principle Investigator**
  - **New Covid medicine: Aviptadil** infusion in ECMO, MV, and HFNC patients. Now closed.
- Associate Investigator- prior
  - Extracorporeal CO2 Removal: ALung, Hemolung Respiratory Assist System.
  - ECMO Research Database
  - **Subcutaneous EEG system:** innovative technology that provides more accurate EEG in critically ill patients.
  - Thrombotic Complications in Covid-19 Patients

#### Fort Belvoir Hospital – August 2014 to July 2018

- **Pulmonary, Critical Care and Sleep Medicine Attending** –
  - Busy inpatient and outpatient service with active teaching of fellows and residents. Alternated time between ICU, inpatient consults, and outpatient clinic

- **Department of Education Training and Research – Scientific Review and Quality Assurance - May 2017**
- **Chairman, Risk Management committee.** Hospital wide.
- **Director Bronchoscopy Service - created Endobronchial Ultrasound Program-** performed over 300 advanced EBUS procedures first year, new capability for Ft Belvoir, had Full day in OR every Wednesday for EBUS cases
- **Published: Acute Eosinophilic Pneumonia in the deployed military setting.** Sine CR, Osborn EC. Respiratory Medicine April 2018;127:123-128.
- **Course Director VV ECMO – Chest 2017 Toronto – Venovenous Extracorporeal Support: Approach to the Patient and Circuit Management**
- **ECMO Educator 2017:** consultant with Innovative ECMO Concepts, helped teach ECMO to new program at Winchester Medical Center, VA
- **Distinguished Chest Educator designation Sept 2017:** award given to the top 5% of educators for Chest over the last 8 years
- **Director: Extracorporeal Support for Severe Lung and Heart Failure-** 3-day course in future at Chest headquarters in Chicago in Dec 2018
- **ELSO (Extracorporeal Life Support Organization) speaker:** lectured about VA ECMO in Septic Shock, VA ECMO for Right Heart Failure. San Diego 2016
- **ECMO Symposium Milan 2016:** invited consultant for discussion about safe expansion of extracorporeal support
- **Extracorporeal Gas Exchange,** chapter published in **Chest Clinics 2016**
- **ECMO Transport** chapter published in **Critical Care Clinics 2017**
- **Previous Chief Respiratory Medicine**
- **Principle Investigator: Investigation of mechanical ventilation and anticoagulation in a Porcine model of Oleic acid injury supported with VV ECMO for 2 days-** 20 animals supported for 2 days each with VV ECMO, grant awarded in 2012 while in Hawaii
- **Director VV ECMO high fidelity simulation course at Chest Conference LA 2016 –** first time this international organization has taught VV ECMO simulation
- **Director, Pulmonary Critical Care Fellowship rotation –** Oct 2014–May 2017
- **Co-Director Clinical Clerkship program for 3rd year medical students from** Uniformed Service University Health Sciences
- **Assistant Professor Medicine, Uniformed Service University of Health Sciences**
- **Started Continuous Renal Replacement Therapy (CRRT) program – performed 1st CRRT case at Ft Belvoir –** continuous renal replacement therapy (slow dialysis)
- **Helped create a Sleep capability at Ft Belvoir-** first home sleep tests
- **Chest Montreal instructor, 2015: VA ECMO and VAD clinical management**
- **Consultant Innovative ECMO Concepts:** November 2015 to present, instructed at Oregon Health Sciences University, Iowa Mercy Hospital
- **Promoted to Colonel, U.S. Army October 2015**
- **Completed ILE (formerly Command and General Staff College) via Army Distance Learning program**

- **ACCP Instructor: Mechanical Ventilation Simulation course** – Chest 2011-2017 Oxygenation strategies and Venovenous Extracorporeal Support
- **Rome Research presentation:** Impact of Antithrombin III Infusion on Coagulation in a Porcine ECMO Model, 41<sup>st</sup> Annual European Society for Artificial Organs, September 2014
- **Biomarker research collaboration with** Nationwide Children’s Hospital in Columbus Ohio, examining coagulation and lung injury biomarkers in a Porcine Oleic acid lung injury ECMO model.
- **Presenter – 42<sup>nd</sup> Brazilian Society of Cardiovascular Medicine, Curitiba and Forteleza Brazil.** April 2014. Lectured on Extreme ECMO, Transport on ECMO, and Anticoagulation for ECMO/VAD.
- **Presenter instructor:** Oregon Health Sciences University November 2015. Taught ECMO to physicians, nurses, respiratory therapists, perfusionists for their new program
- **Grand rounds Cooper University, NJ.** February 2016. Starting an Extracorporeal support program for Cardiac and Pulmonary support. Instructed a new program
- **Chest Instructor.** Advanced Mechanical Ventilation Simulation Course, Chicago February 2015. Lectured on Ventilator discontinuation, Severe Hypoxia, and Extracorporeal Support
- **Speaker Inova Fairfax Critical Care Conference 29<sup>th</sup> year.** March 2016. Venovenous ECMO.
- **Medical Critical Care Service, Inova Fairfax Hospital:** critical care physician, part time work, 2015 to present.
- **Invited Speaker.** Allied Health University of Minnesota. Cardiothoracic Surgery Conference. Lectures on ECMO Transport and ICU Management of ECMO Patients. April 2016
- **Speaker ATS 2016.** Speaker Fellows Track. May 2016. American Thoracic Society, San Francisco. Lectures about VA ECMO and Ventricular Assist Devices.
- **Medical monitor.** Advanced therapy for stage 4 lung cancer treatment. Protocol in process at Ft Belvoir
- **Assistant Investigator.** STAMPEDE trial investigating respiratory symptoms in deployed soldiers. Protocol in process at Ft Belvoir.
- **Two recent publications:** NGAL biomarker for Lung Injury 2017 J Crit Care, Acute Eosinophilic Pneumonia in Military 2017 Respiratory Medicine
- **Speaker North Carolina Respiratory Medicine Conference Sept 2016:** lectured about Extracorporeal Carbon Dioxide Removal, Venovenous ECMO, Management of Mechanical Ventilation while on Extracorporeal Support
- **Mechanical Ventilation Task Force Chest-** 2015 until present, help with future education planning



## **Tripler Army Medical Center - August 2010 to August 2014**

- **Chief Pulmonary Critical Care Medicine 2013-2014**
- **Medical Director Respiratory Medicine 2011-2014:** in charge of 36 RTs, advanced ARDS MV protocols, HFNC protocols for ARDS
- **Director Adult Extracorporeal Service** - serving the Pacific Theater and civilians on the island of Hawaii.
  - First adult VV ECMO patient in a US Military facility and first adult program for Hawaii
  - Completed longest adult VV ECMO transport on record, from Japan to Hawaii
- **Principle Investigator: Creation of a Pacific Military Extracorporeal Support Program Using a Porcine Model for Training and Outcomes Analysis,** awarded \$479,000 grant for creation of an ECMO capability at Tripler
  - Provide training for ECMO team using an animal laboratory
  - Research different anticoagulation and mechanical ventilation strategies in ECMO using oleic acid lung injury model, histology, biomarkers
  - 10 two-day ECMO labs, each with two adult sized pigs
- **Deployed Medical Director, Bastion Role 3 UK Hospital, Helmand Afghanistan September to April 2013**
  - In charge of 102 soldiers. Deployed to combat support hospital, 60 bed joint US-UK venture, in charge of all American providers.
  - Supported British soldier with Q fever and anaphylaxis with ECMO
  - NGAL: Neutrophil Gelatinase Associated Lipocalin in Combat Lung Injury biomarker project
  - Afghan Trauma Cohort – 50 sequential trauma patients with follow up
  - Prospective Cleaning study comparing British vs US cleaning agents
- **Adult Venovenous ECMO transport** – longest and second longest adult transport on record from Japan to Honolulu and from Honolulu to Iowa, first adult treated with VV ECMO in Hawaii (Straub Hospital November 2010)
- **Presented at University of Pittsburg's annual ECMO conference:** Extreme ECMO circumstances, September 2013
- **Faculty - American College of Chest Physicians (ACCP)**
  - **Instructor for Advanced Mechanical Ventilation Simulation course**
    - Taught VV ECMO and High Frequency Percussive Ventilation
    - Severe hypoxic respiratory failure
  - **Presented at Chest Conference, ACCP October 2011**
    - Transport of Combat Casualties with Respiratory Failure
    - Presented 10,000 Miles of Extracorporeal Support in Flight
- **Principle Investigator:** Validation of a New Method for Continuously Measuring Hemodynamic Properties and Blood Pressure Using Non-Invasive Trans-Brachial Electro-Velocimetry (TBEV)
  - Prospective observational study on humans
- **Co-Author: Inter-hospital transport of patients on Extracorporeal Life Support, Red Book, 4<sup>th</sup> edition, ELSO. May 2012**

- **Continuous Renal Replacement Therapy (CRRT)**
  - New CRRT program at Tripler and First Plasmapheresis done at Tripler
- **Bronchial Thermoplasty Program**
  - First bronchial thermoplasty performed in Hawaii
- **Instructor - Fundamentals of Critical Care Support Course** by Society of Critical Care Medicine. Traveled to Naval Hospital in Guam
- **Safety Consultant** – delivered hospital wide presentation on patient safety, teamwork, lessons learned from root cause analysis
- **Risk Management Committee** – Department of Medicine representative
- **Director, Adult Cystic Fibrosis Program**
- **Sleep Medicine Physician**
  - Started first patient in Hawaii on Xyrem
- Instructor – Cardiopulmonary Bypass course
- Director – Pulmonary Function Laboratory and Bronchoscopy Services
- JMATT (Joint Medical Air Transport Team) course completed
- Coordinated first Donation after Cardiac Death at Tripler with Legacy of Life Hawaii
- Chief of Pulmonary Function Laboratory
- First use of Impella, percutaneous LVAD for use in Shock at Tripler

### **Pulmonary Critical Care and Sleep Medicine**

#### **Landstuhl Regional Medical Center Germany - July 2007 to August 2010**

- **Director of Graduate Medical Education** - responsible for all medical students, residents and fellows rotating through LRMC ICU
  - 41 students and physicians in training a year, set up lecture program
  - **International** students and residents from Germany, Univ of Sydney, Australia and Univ of Calgary, Canada
- **Chief of Respiratory Medicine** responsible for management of all 34 respiratory therapists in a tri-service team
- **Lung Team - Critical Care Air Transport Team (CCATT) member** participating in missions to Iraq and Afghanistan in support of Operations Enduring Freedom and Iraqi Freedom
  - Transported patients with severe polytrauma and ARDS on high frequency percussive ventilation that were too unstable for regular CCATT
  - Used extracorporeal pumpless support for transport
  - Remote cannulation of ECMO patients
- **Director of new Extracorporeal Support Service in 2008**
  - Created first military adult ECMO transport service
  - Treated patients at LRMC with help from Regensburg ECMO program
  - Created new capability to treat injured military members in combat zones
  - First ECMO transport from combat zone completed
  - Worked with world expert German ECMO team from University of Regensburg Germany

- Trained with pig ECMO model
- Trained with expert ECMO providers at Regensburg University, Mannheim, and Homburg hospitals
- **Pumpless Extracorporeal Lung Assist (PECLA) 2007:**
  - Trained in use of PECLA device, Novalung or Interventional Lung assist device
  - Pig lab for animal training prior to use on adults
  - Novalung Transport 2009 – First traumatic pneumonectomy patient to survive OIF and OEF conflicts, British Soldier from Bastion Hospital
- **Slow Dialysis provider.** One of three physicians at LRMC who ran a 24/7 dialysis, SLED (slow low efficiency dialysis) program for emergent renal replacement therapy.
  - Performed 18 renal replacement treatments with remote nephrology consultation from WRAMC.
- **Crimean Congo Hemorrhagic Fever – first US patient**
  - Cared for CCHF patient at Landstuhl, used SLED and MARS in addition to advanced respiratory support
  - Ribavirin prophylaxis for ICU team, RT and RN taking ribavirin developed CCHF antibodies
  - Experienced published in Emerging Infectious Disease journal
- **Sleep medicine provider.** One of 3 providers at new sleep lab
- **Investigator: Quality Assurance Investigation** involving allegations of physician-provider misconduct that occurred in Kosovo
  - Wrote a 26-page report for the credentials committee after traveling to Kosovo for the investigation
- **Lecturer** for ERMC Primary Care Nursing Conference
  - Presented on Asthma and Eosinophilic Pneumonia
- **Grand Rounds on Mechanical Ventilation: Salvage Treatment of ARDS at LRMC**
- **Chief of Pulmonary Critical Care** during assigned Chief's deployments and leaves of absence
- Presented at Chest 2007 – Longest Use of Independent Lung Ventilation
- **ALTHA clinical champion** for pulmonary medicine
- **Augmented ARDS advanced and salvage treatments**
  - Purchased two 3100B ventilators so LRMC can provide HFOV (high frequency oscillatory ventilation).
  - Used VDR frequently for inhalation injury and ARDS
  - Wrote flolan continuous inhalation protocol
  - Used the Interventional Lung Assist (ILA or Novalung), an extracorporeal pumpless device
- Received Constructive credit for Captain's Career Course
- Tuberculosis Expert Consultant for European Regional Medical Command

**Fellow – Pulmonary Critical Care Medicine, Walter Reed Army Medical Center  
June 2004 to 2007**

- **Primary author** of the **Public Policy and Tobacco** speaker's slide set revealed at the Chest 2006 meeting in October as part of the Chest Foundations efforts to fight the tobacco epidemic
- **Instructor** for the **Simulation Program regarding Emergency Endotracheal Intubation at Chest 2006**
- **Lectured** to medical students at Uniformed Services University of Health Sciences on pulmonary physiology and acid base disorders
- Grand Rounds Speaker at Walter Reed April 2006 – Operational Medicine: Five Deployments as an Internist
- Medicine Grand Rounds at Walter Reed January 2006 – Acute Chest Syndrome in Sickle Cell Disease
- Presentation at District of Columbia Thoracic Society – Fulminant Cryptogenic Organizing Pneumonia in an Active Duty Soldier
- Lectured to medicine house staff on sarcoid, mediastinal diseases, and pleural diseases.
- Presented and served as panel member for Humanitarian and Operational medicine at the April 2006 American College of Physicians meeting at USUHS
- Spoke to USUHS medical students about internal medicine opportunities at a club med luncheon
- Testified before DC Council on behalf of the Smoke Free DC campaign with the American Lung Association. DC is now smoke free, as the legislation passed
- Instructed medical students from USUHS in clinical practice seminars in dyspnea, hemoptysis, and cough
- Delivered a lecture on Sarcoid to the PAs, LPNs, and nurses at the Advance Lung Disease and Lung Transplant program at INOVA Fairfax hospital in VA during my rotation there

**Staff Internist – 67<sup>th</sup> Combat Support Hospital / Wurzburg MEDDAC:  
August 2001 to June 2004:**

- **Chief of Internal Medicine** when active chief deployed served 8 months total
- **Chief of Cardio-Pulmonary Department** – rated 6 soldiers and performed GXTs, PFTs, exercise PFTs, methacholine challenge tests
- **Continuing Medical Education Director** 2002 - 2004
- **Chairman of Tobacco Cessation Program at Wurzburg MEDDAC** and ran the program in Kosovo and Hungary during deployments
- **Precepted, supervised, served as attending physician** for 6 rotating German medical students and 14 rotating GMOs and local PAs
- **Chairman of Emergency Cardiac Care Committee** - 2001-2002
- Lectured to entire hospital (500 people) at a commander's call on Nerve Agents and Smallpox

- 20<sup>th</sup> Symposium of Emergency and Critical Care Medicine – International Conference organized by the Greek Department of Defense. June 2004
  - Delivered two talks: Combat Critical Care and Critical Care Transport
- **Deployed to Kosovo** twice – performed multiple critical care helicopter transports. 67<sup>th</sup> CSH
- **Deployed to Hungary** – collaborated with Iraqi Dissidents. **Task Force Warrior** training the **Free Iraqi Forces**. 67<sup>th</sup> FST
- **Deployed to Africa, Senegal** – supporting evacuation from Liberia for **Operation Shining Express**. 67<sup>th</sup> FST
- **Deployed to Iraq, Mosul** – **Operation Iraqi Freedom**. Worked as Medical Director for our 10 bed ICU and 32 bed medical ward. 67<sup>th</sup> CSH
- **Critical Care Transport** – multiple rotary and fixed wing transports of the sickest patients

### **Internal Medicine Resident – GMO – WRAMC**

**October 1998 – August 2001:**

- In addition to my duties as a resident, I worked as a GMO (General Medical Officer) completing complex medical boards in the Internal Medicine clinic.
  - This was intended to get me back on cycle after the 18 months I spent training for the 1996 Olympic Trials in Swimming

### **Internal Medicine Intern – WRAMC**

**October 1997 – October 1998**

### **Medical Student – Columbia University**

**April 1996 to October 1997**

### **Active Duty 2LT – Swimmer in Army's World Class Athlete Program**

**April 1995 to April 1996 – Training for US Olympic Swimming Trials**

- Leave of absence from medical school to train full time for the US Army Swimming team in preparation for the United States Olympic Swimming Trials
- Came close to making the 1996 United States Olympic Swimming Team
- Served as 2LT in active duty and represented US Army at Olympic Trials and in international competition

### **Medical Student – Columbia University**

**August 1992 to March 1995**

### **Art Dealer – Southern Florida**

**September 1991 to August 1992**

- Sold paintings, portraits, and landscape, while swimming professionally in Florida

### **Professional Swimmer – Ft Lauderdale, Florida – Sept 1991 to Aug 1992**

### **Columbia University Pre-Medical Certificate – New York**

### **May 1990 to September 1991**

- Volunteered at St Luke's Emergency Room – level one trauma center
- Trained with Columbia University Swimming team and competed for the New York Athletic Club. Competed in US Swimming National Championships

### **Princeton University**

#### **September 1986 to June 1990**

- BA English, June 12, 1990
- Captain of the varsity swimming team 1989-1990
- American Record holder, Division I Champion 1990
- All-American in 50- and 100-yard freestyle 1988, 1989, 1990
- Worked at Carrier Foundation Drug and Alcohol Rehabilitation Hospital – helped adolescents with drug induced psychiatric conditions
- Tutored English to high school students in Trenton, NJ
- Received the War Memorial trophy in 1990, given to the member of the swimming team who excelled both athletically and academically
- Received Swaybe Spirit Award 1988, given to undergraduate who made the strongest leadership contributions to the swimming team

### **Honors and Recognition:**

#### **Military:**

- Bronze Star Medal – valor and exceptional service in combat March 2013
- Meritorious Service Medal x2 – for work at Tripler and Landstuhl
- Army Commendation Medal x3
  1. Performance at 1996 Olympic Trials
  2. Completion of residency
  3. Completion of fellowship
- Army Achievement Medal – for service to Task Force Falcon in Kosovo, June 2002
- NATO Service Medal x2 – service in Kosovo, June 2002, service in Afghanistan March 2013
- Romanian Battle Crest – for critical care transport and medical care of a Romanian soldier with intra-cerebral hemorrhage, May 2002
- Recognition – Task Force Warrior in Hungary, training the Free Iraqi Forces, Iraqis from the US and Europe who wanted to work for the US Army in civil affairs

### **Professional Societies:**

Extracorporeal Life Support Organization  
American College of Chest Physicians  
American Thoracic Society  
Society of Critical Care Medicine

## Publications/Research – partial list

- **Osborn E**, Ransom J, et al. A Novel Treatment Paradigm for the Treatment of Covid-19 Induced ARDS Authorea. April 25, 2023. DOI:10.22541/au.168240074.46976663/v1
- Ahmad Q, **Osborn E**, Singh R, Puri N, Moran P, King C. Impact of Noninvasive Respiratory Support in Patients With COVID-19 Requiring V-V ECMO. *ASAIO J.* 2022 Feb 1;68(2):171-177. doi:10.1097/MAT.0000000000001626. PMID: 35089261
- Mehul Desai, **Erik Osborn**, Christopher King, Oksana A Shlobin, Mitchell Pstoka, Liam Ryan, Saba Javid Akhtar, Ramesh Singh. Extracorporeal life support for cardiogenic shock during pregnancy and postpartum: a single center experience *Perfusion.* 2022 Jul;37(5):493-498. DOI: 10.1177/02676591211004369
- Mannan A, Sutingco N, Djurkovic S, **Osborn E**, et al Younossi Z. Service line care delivery model for COVID-19 patient-centric care. March 2022. *Am J Man Care* 28(3): e80-e87. DOI: 10.37765/ajmc.2022.88731
- Rosner CM, Tehrani B, **Osborn E**, et al. Management of Cardiogenic Shock During Covid 19: The IHVI Experience. *J Am Coll Cardiol.* 2021 Jan, 77 (2) 227-228
- King CS, **Osborn E**, et al. Outcomes of mechanically ventilated patients with COVID-19 associated respiratory failure. *PLoS One.* 2020 Nov 23;15(11): e0242651.
- Chandel A, Looby M, **Osborn E**, et al, King C. Association of D-dimer and fibrinogen magnitude with hypercoagulability by thromboelastography in severe COVID-19. July 2020. DOI: [10.1101/2020.07.27.20162842](https://doi.org/10.1101/2020.07.27.20162842)
- **Osborn E**, Speir A, Lantry J, et al, American Experience with Extracorporeal Support in Covid-19 Patients: Early Outcomes from a Single Institution. *Clinical Case Reports.* July 2020.
- The Practice and Principles of Extracorporeal Membrane Oxygenation (ECMO). Medical Procedures, Testing and Technology. Nova. Jan 27, 2021. Chapter 8. ECMO Complications, Lantry J, **Osborn E**, et al. Chapter 10. Multidisciplinary Team-Based Management of Cardiogenic Shock. Truesdell A, **Osborn E**. et al.
- The Practice and Principles of Extracorporeal Membrane Oxygenation (ECMO). Medical Procedures, Testing and Technology. Nova. Jan 27, 2021. Chapter 6. Left Ventricular Unloading in Peripheral Venous-arterial Extracorporeal Membrane Oxygenation. Desai M, **Osborn E**. et al.
- Desai M, et al, **Osborn EC**. Fixed and Dilated Pupils: Not a Contraindication for Extracorporeal Support. *Perfusion.* 2020 Nov;35(8):814-818. Doi: 10.1177/0267659120915386. Epub 2020 May 13.
- Desai M, Ryan L, Sarin E, **Osborn E**, Singh R. Use of Endovascular Percutaneous Vascular Closure Device as Compared to Surgical Cutdown for

Decannulation in Venous-Arterial Extracorporeal Membrane Oxygenation (VA ECMO) October 2020. *J Am Coll Card* 76(17): B128  
DOI: 10.1016/j.jacc.2020.09.315

- Niziolek KC, Preston TJ, **Osborn EC**, Transport While on Extracorporeal Membrane Oxygenation Support, *Crit Care Clin* ,33 (2017), 883-896
- Bhatt N, **Osborn EC**, Extracorporeal Gas Exchange. *Clin Chest Med*, 37 (2016), 765-780
- Sine CR, et al, **Osborn EC**. Acute Eosinophilic Pneumonia in the deployed military setting. *Respiratory Medicine* April 2018; 127:123-128.
- Lumley A, **Osborn E**, et al, The role of neutrophilic gelatinase-associated lipocalin (NGAL) in the detection of blast lung injury in a military population. *J Crit Care*, 2017 Sep 1;43:312-315
- Cannon J, Pamplin J, **Osborn E**, et al. Acute Respiratory Failure. *Mil Med*. 2018 Sept 1;183(supp\_2):123-129. doi: 10.1093/milmed/usy151.
- Bein T, **Osborn E**, et al, Transportable extracorporeal lung support for rescue of severe respiratory failure in combat casualties, *J Trauma Acute Care Surg*. 2012 Dec;73(6):1450-6. doi: 10.1097/TA.0b013e3182782480
- **Osborn E**, Tyree, et al, 10,000 Miles of Extracorporeal Support for Adults in Flight: Is an Altitude Restriction Required for Long-range Transports? *Chest* October 2011 140:4 204A; doi:10.1378/chest.1119595
- Allan, Patrick F.<sup>1</sup>; **Osborn, Erik C.**<sup>2</sup>; Bloom, Brian B; Wanek, Sandra; Cannon, Jeremy W. The Introduction of Extracorporeal Membrane Oxygenation to Aeromedical Evacuation. *Military Medicine*, Volume 176, Number 8, August 2011, pp. 932-937(6)
- Combes A, Brodie D, **Osborn E**, et al, Position Paper for the Organization of Extracorporeal Membrane Oxygenation Programs for Acute Respiratory Failure in Adult Patients, *Am J Respir Crit Care Med* Vol 190, Iss5, pp488-496, Sep 2014
- Sine C, et al, **Osborn E**, Case Series of 44 Patients with Idiopathic Acute Eosinophilic Pneumonia in the Deployed Military Setting *Chest* October 2011 140:4 675A; doi:10.1378/chest.1115437 (in press)
- Fang, R, **Osborn EC**, et al. Closing the “Care in the Air” Capability Gap for Severe Lung Injury: The Landstuhl Acute Lung Rescue Team and Extracorporeal Lung Support. *Journal of Trauma-Injury Infection & Critical Care*: July 2011 - Volume 71 - Issue 1 - pp 91-S97
- Patrick Allan, **Erik C. Osborn**, Brian Bloom, Yolanda Barnes, Rosemary Wells, Raymond Fang, Ronald Markert, and Ralph L. Haynes. Combat-Associated Acute Lung Injury; Cohort Study of 661 Combat Related Trauma Patients. Pending publication.
- Bein T, **Osborn E**, Hoffman H, Zimmerman M, Phillip A, Schlitt H, Graf B. Successful treatment of a severely injured soldier from Afghanistan with pumpless extracorporeal lung assist and neurally adjusted ventilatory support. *Int J Emerg Med*. 2010; 3:177-179
- Londeree W, **Osborn E**, Rare Cause of Massive Chylothorax in a Young Woman, *Chest*. 2015 Oct; 148:854A



- Conger NG, **Osborn EC**, Rusnak JM, Günther S, Pool J, et al. Health care response to CCHF in US soldier and investigation of nosocomial transmission to health care providers, Germany, 2009. *Emerg Infect Dis.* 2015 Jan (online first) <http://dx.doi.org/10.3201/eid2101.141413>
- Allan P, **Osborn E**, Chung K, Wanek S. High-Frequency Percussive Ventilation Revisited. *J Burn Care Res* 2010; 31:1-11
- Ölschläger S, Gabriel M, Schmidt-Chanasit J, Meyer M, **Osborn E**, Günther S, Complete Sequence and Phylogenetic Characterization of Crimean-Congo Hemorrhagic Fever Virus from Afghanistan, Letter, *Journal of Virology*, January 2010
- Fang R, **Osborn E** et al. Critical Care at Landstuhl Regional Medical Center, *Crit Care Med* 2008 Vol. 36, No. 7 (Suppl.)
- Allan P, **Osborn E** et al. High Frequency Percussive Ventilation in Military Aeromedical Evacuation - submitted to *Journal of Respiratory Care* in October 2008. Manuscript ID: RC-00423
- Allan P, Osborn E, (acknowledgement) Pneumotachograph Validation and Tidal Volume Analysis, *Respiratory Care*, June 2010; Vol 55: 6
- Associate Investigator: A Case Control Analysis of Combat Associated Acute Lung Injury - investigation looking at incidence of and risk factors for combat associated ALI.
- Osborn E, Shah A, Browning R, Longest Use of Independent Lung Ventilation in a patient with Multifactorial Respiratory Failure, *Chest.* 132(4):693(Oct 2007).
- Osborn E, Shah A, Kristo D. Novel Diagnosis of Pulmonary Metastasis in Recurrent Respiratory Papillomatosis. *Chest.*130(4):340S (Oct 2006)
- Bennett SP, Remo J, **Osborn E**, Statler J. CMV-Induced Alveolar Hemorrhage in HIV. *Chest* 2001; 120:347S.
- Osborn E, Krause S. "Response to Chemical and Biological Attack," co-author of SOP for Wuerzburg MEDDAC/67<sup>th</sup> CSH in Fall 2001
  
- **Presentations** – partial list in addition to those listed above
  - Grand Rounds Tripler Army Medical Center: Paradigm Shift: Use of Extracorporeal Support for Cardiac and Pulmonary Failure, October 2013
  - Grand Rounds Queens Medical Center: Use of Extracorporeal Support in Combat Environments May 2013
  - Grand Rounds Tripler Army Medical Center: Severe Respiratory Failure March 2012
  - Presentation at WACCS – Washington Area Critical Care Society – poster presentation and discussion of Infectious Causes of Diffuse Alveolar Hemorrhage – Spring 2001 as resident

- Poster Presentation at Regional American College of Physicians 2001 (Diffuse Alveolar Hemorrhage) and won outstanding presentation
- Grand Rounds presentation at multi-national medical conference in Kosovo 2002 – “Sepsis and Septic Shock” – as a staff officer
- Grand rounds presentation at multi-national medical conference in Hungary 2003 – “Acute Myocardial Infarction” – staff officer
- Presentation at European Regional Medical Command Fall conference Sept 2003 – “Coding for Internal Medicine – Receiving Credit for Work Done”

### **Skills/Interests**

- Speak, read, and write German
- ACLS instructor, ATLS, PALS certified
- Ran New York marathon in 2000
- Competed in triathlons
- Swimming
- Robotics

### **Partial list of selected media appearances 2020 to present:**

- <https://wjla.com/news/local/keep-masks-on-even-as-covid-vaccines-get-doled-out>
- <https://wjla.com/news/local/we-fought-to-be-back-here-four-covid-patients-meet-in-unconventional-homecoming>
- [https://abcnews.go.com/Nightline/video/doctors-understand-covid-19-symptoms-left-questions-70300304?fbclid=IwAR16g10x7NGp-b\\_XINxVrrByQIO5gvhJe9Wn4BEghJM5bj\\_jjSUZaAsHjgQ](https://abcnews.go.com/Nightline/video/doctors-understand-covid-19-symptoms-left-questions-70300304?fbclid=IwAR16g10x7NGp-b_XINxVrrByQIO5gvhJe9Wn4BEghJM5bj_jjSUZaAsHjgQ)
- <https://wjla.com/news/local/i-am-alive-because-of-you-covid-19-patient-meets-man-who-donated-convalescent-plasma>
- <https://wjla.com/features/7-on-your-side/fairfax-county-man-inova-hospital-plasma-treatment>
- <https://www.nbcwashington.com/news/local/road-to-recovery-manassas-father-tells-his-covid-19-story/2277535/>
- <https://wjla.com/news/local/i-am-alive-because-of-you-covid-19-patient-meets-man-who-donated-convalescent-plasma>
- <https://www.fox5dc.com/video/686293>
- <https://noticias.caracoltv.com/mundo/revelador-testimonio-de-colombiano-que-recibio-plasma-convaleciente-en-eeuu>
- <https://www.lung.org/blog/about-ecmo>